M THE ORE DIGGER

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Panel discusses sustainability at CSM

Akira Rattenbury
Staff Writer

"There are a lot of things we can do together in the arena of sustainability, none more important than what we can do right here in Golden, and we look forward to working with the city on these projects," CSM President Bill Scoggins told a group of students, faculty, and community members gathered in Berthoud 241 last Tuesday to watch ***Everything's Cool.*** The screening was followed by with a discussion which focused on local sustainability issues.

The movie harped continually on the unfair practice of hired scientists turned lobbyists singing the "swan song of pseudo-scientific deception," while also profiling the modern-day heroics of "self-proclaimed Global Warming messengers." The movie featured several key players including Rick Piltz, a former government researcher on climate change turned watchdog against the systematic censorship and unbalanced word-smithing of the Bush administration over scientific reports on climate change.

> "The number one issue is education," said former Golden mayor Chuck Baroch. "But we have not yet found the key."

Overall, the movie raised numerous critiques of the current climate change debate, examined the negative effects of environmentalism's radical and alarmist tactics, and proposed the need for thorough, objectivist dialogue to build coalition and public support for changes.

The movie's website summarized its message. "The ultimate challenge is to show how urgent this situation really is - and still leave people optimistic and willing to do something. That perhaps is the ultimate challenge to all global warming messengers."

The panel discussion following the movie strayed from debating climate change to a more open discussion of current sustainable practices within CSM and local governments. Panelists and guests included the former and current mayors of Golden, CSM Board of Trustees member Jim Spaanstra, and President Scoggins.

"Addressing the sustainability issue locally will become important, and I think that is a role the school can perform very well in terms of the technology," said Scoggins in reference to CSM's global reputation. "I also think we have a role we can play in the policy."

The discussion continued with Jacob Smith, current Golden mayor, who outlined some of the steps the city is undertaking to improve their ecological footprint. Smith explained the completed retrofit of LED stoplights throughout the city, as well as ongoing goals to reduce energy consumption. A task force will be meeting over the next four months to examine the bicycle master plan for Golden, and consider options for improving bikeways.

Jon Meuser, president of the Student Council on Sustainability, was intrigued by the idea of looking at bicycling options and asked the mayor to consider working on expanding a bikeway to Boulder as many bike commuters and cyclists could benefit from avoiding the "death dance" with cars on US-93. Trustee Spaanstra offered his support into looking at the feasibility for such an expansion within his role on the Jefferson County Planning Commission.

> "In order to drive sustainability issues forward, you need a champion."

The discussion turned to talks about including a sustainability academic program. Carrie Sonneborn of the LAIS Department, along with Dr. Masami Nakagawa of the Mining Department, expressed their interest in helping design a possible program. Sonneborn will be teaching a course on corporate responsibility and sustainability this summer. Dr. Nakagawa introduced a course on sustainability this spring and iterated his interest in expanding the curriculum.

Throughout the discussion, panelists offered their views on the future of sustainability. "In order to drive sustainability issues forward, you need a champion," said panelist Jill Cooper, a lawyer for Faegre and Benson. Much of the debate focused on the need for students to find interested individuals and professors to help push their issues to fruition.

Overall, the discussion hit on many of the challenges facing students, administrators, and communities when dealing with pushing innovative ideas forward to solve the climate crisis. "The number one issue is education," said former Golden mayor Chuck Baroch. "But we have not yet found the key."

COURTESY EMILY PRZEKWAS

NCAR expert discusses future models

Anant Pradhan
Staff Writer

"Human fossil burning, not changes in ocean uptake or natural variations, have caused global climate change," said Caspar Ammann of the National Center for Atmospheric Research (NCAR), in Boulder, Colorado. The presentation, held on April 22, outlined many of the projections and model forecasts that we may face in the upcoming century as the result of global climate change.

Before getting into the scientific elements of his presentation, Ammann showed a series of slides from the Smithsonian Institute of the natural beauty of the earth. Slide after slide depicted the unique landscapes and wildlife of various regions around the world.

He then transitioned into the science identifying clear trends and correlations between human fossil fuel burning and global warming. "We can show that the upward trend in CO_2 is from these (human) activities", he said.

"Even the world's oceans, are feeling the impacts," said Ammann, while identifying the recent opening in the Northwest Passage.

The melting of glacial ice has become so prevalent that the shipping industry has even begun to develop ice-breaking ships. These ships would be able to cut down on traveling time by cutting through the soon to be open passage.

Some of the projections that current models have identified indicate that glacial ice melting may not be the only problem we will face in the next century. Models have shown that the surface temperature may rise between 0.5 and 4 degrees Celsius in the next hundred years.

While that temperature variation may seem negligible, Ammann cautioned that the last time these effects were experienced by the earth, a glacial cycle began. In that glacial cycle the entire Midwest was covered in ice.

Precipitation models further illustrate some of the negative effects of global warming. These models show that deserts over the equator will likely expand while higher latitudes may experience an increase in precipitation. The southwest United States is predicted to experience a mega drought beginning as early as the next several years.

Ammann did, however, attempt to identify the flaws in current models. "These models aren't perfect but give a good rough estimation of what we can expect," he said. "When applying the models to historical data, they seemed to generally replicate the climate as we know it from geological evidence."

Reflecting on the presentation, sophomore Andrea Yocom said, "Caspar [Ammann] provides us with a realistic change. He really makes the consequences of continued inaction, on the part of the global modern citizen, real."

Students explore a HUMMER that runs on everything but gasoline.

COURTESY EMILY PRZEKWAS

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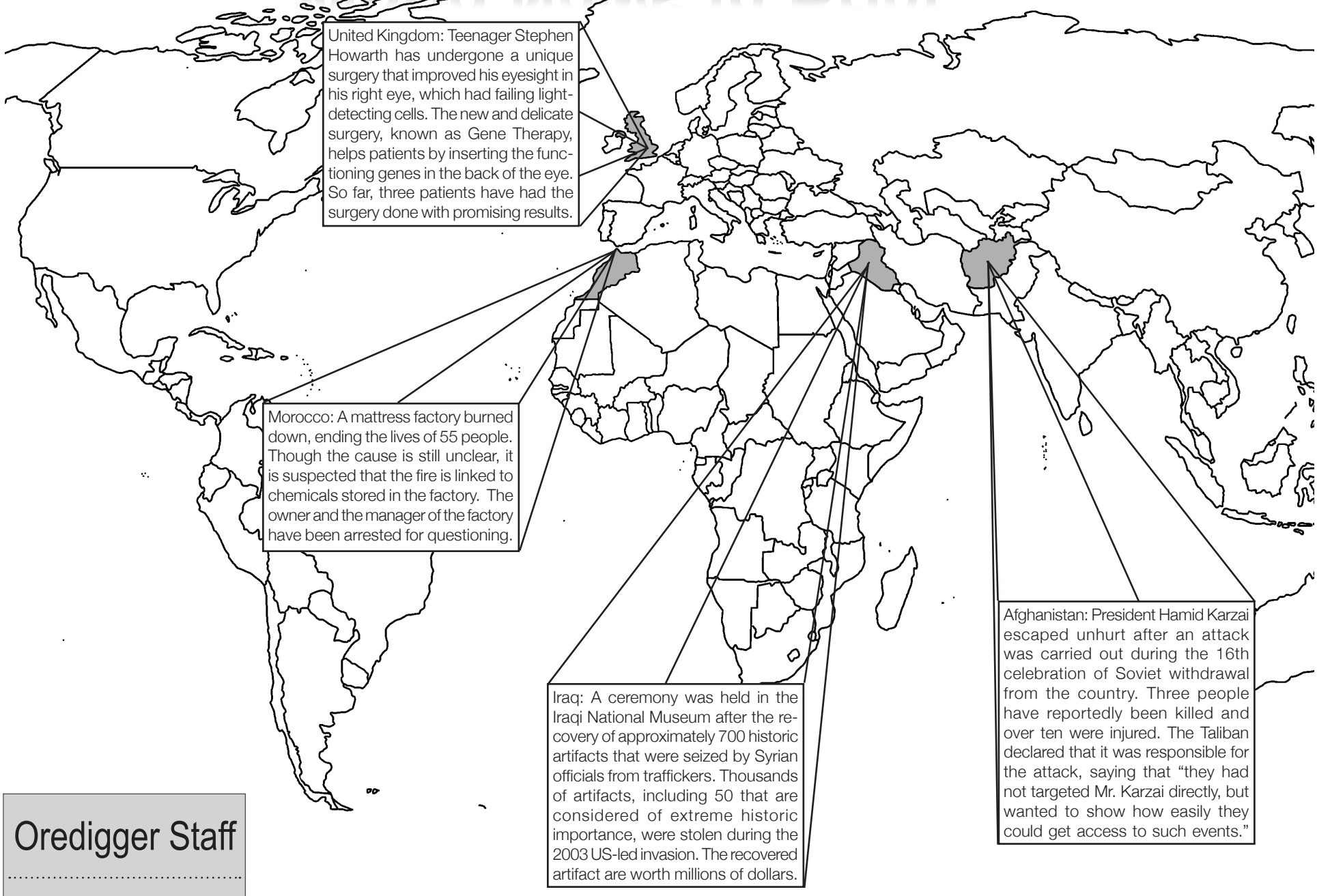
World News in Brief

Abdullah Ahmed, Asst. Business Manager



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Top academic fraternity at CSM suspended for alcohol incident

Zach Aman
Editor-in-Chief

Through the 2008-2009 academic year, the Sigma Phi Epsilon chapter at Colorado School of Mines will be placed on suspension for an unauthorized alcohol event that took place one week before Engineering Days.

According to CSM administration, multiple underage students participated in the activities. In an anonymous Letter to the Editor, the Oredigger was informed that one of-age student was sent to the hospital with a 0.5 blood alcohol content.

"The event at the SigEp house violated chapter regulations, school regulations and state and federal laws regarding alcohol," said Derek Morgan, Director of Student Activities and advisor to the Interfraternity Council (IFC) at CSM. "From the information I have from the chapter president, the national fraternity office and the Sig Ep alumni association, I think we all agree what happened; there is no discrepancy in what happened, and we all agree it was unacceptable."

In the wake of Engineering Days, Morgan said that he and Dr. Harold Cheuvront, Vice President and Dean of Students at CSM, discussed the "gamut of possibilities" for punitive action. "They're not going to be removed from campus and their charter is not being pulled," said Morgan, "but they are on suspension for a year. The length of that [suspension] will be determined by compliance with certain requirements."

According to Morgan, the "suspension" means that members will not be able to live in the fraternity house through the upcoming year, participate in intramural activities or homecoming as an official fraternity, or recruit next fall. "They still have a seat on the Interfraternity Council, but their vote is being removed for the year," said Morgan. "The two SigEp members of the IFC executive committee have resigned."

> In order to return after only one year of suspension, Morgan also said that the fraternity must come back a "dry house," banning alcohol from the fraternity.

In addition to the suspension regulations, the chapter must undergo a "membership review," where the commitment and contribution of members is evaluated in an interview process. If the chapter follows all specified regulations, their return to full standing in the 2009-2010 academic year will be marked by participation in the Resident Scholars Program, where a graduate student will live in-house with the group to act as a mentor and advisor.

In order to return after only one year of suspension, Morgan also said that the fraternity must come back a "dry house," banning alcohol from the fraternity. According to Morgan, the Sigma Nu fraternity was also "removed from campus for violation of school policies" roughly 15 years ago; their return was also contingent on becoming a dry house.

The current membership has been asked to hold a joint retreat with alumni to establish a goal set and discuss action plans for success. According to Morgan, the fraternity must hold "alcohol awareness education and risk management workshops" each semester.

The fraternity was also a source of criticism over the inclusion of a beer keg on their 2007 homecoming float. "That was dealt with by our IFC and the Student Activities office," said Morgan. "Their national office also handed down some sanctions regarding that event."

"While the incidents of the fall and spring are unacceptable," said Morgan, "the chapter as a whole isn't bad. Suspension removes some of their privileges and lets them know that some of the choices they're making aren't acceptable, but we can use this as a turning point in the chapter."

Passing the gavel

TIM WEILERT / OREDIGGER

Former ASCSM President Casey Morse, right, passes the officiating gavel to incoming president Kevin Duffy, left, during the annual transition meeting last Thursday. For the past year, Duffy has served as the ASCSM Treasurer, managing a half-million-dollar budget annually. "It has been an honor to serve the student body so far," said Duffy, "and I sincerely look forward to next year's opportunities."

Recycling forum examines CSM's move to a sustainable campus

Mark Barkmeier
Staff Writer

One of CSM's Green Initiatives and sustainability plans is improving its recycling program. As part of the Climate Action Days celebrations, there was a forum on the current program, run by Environmental Health and Safety (EH&S).

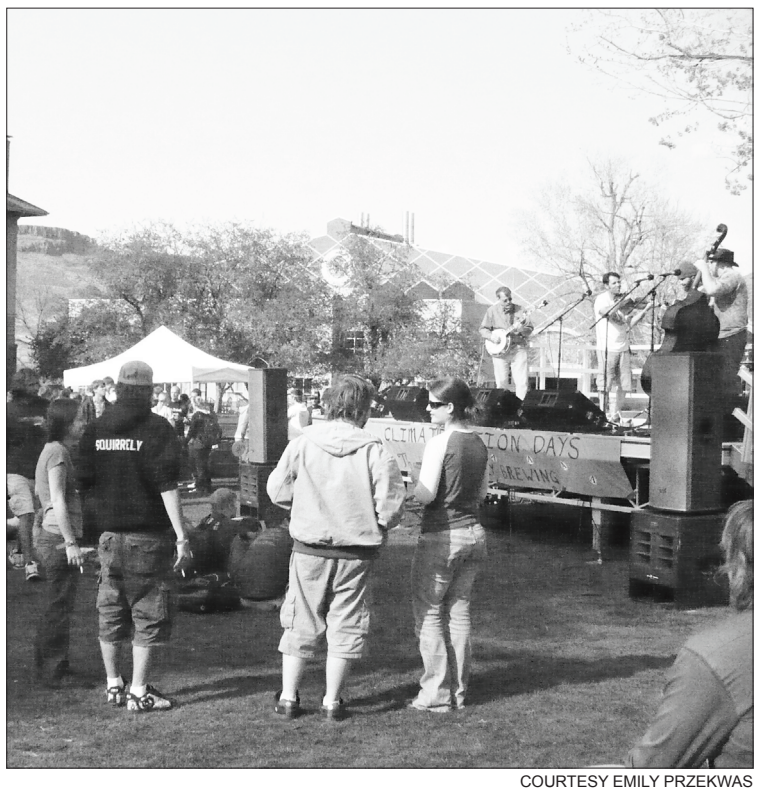
The recycling program started 15 years ago with the focus on revenue available in some materials. This was basically aluminum and office paper.

The program has since expanded to recycle more materials. EH&S can now recycle some hazardous elements, including those in computers, electronics, and fluorescent lights. EH&S also distributes chemical reagents and recollects them to minimize harmful waste.

The recycling program helps to save costs, by diverting materials from landfills. It costs CSM less to recycle the materials than it does to truck it off to the dump.

There are numerous changes happening to the recycling program. The facilities are being moved from near the Geology Museum to the old Ford dealership across the street from Weaver Towers. "This will more than double our operating space," said Linn Havelick, Director of EH&S.

Another change is that the program will now "start to capture used electronics from the students." Currently any recycled electronics come from the departments on campus.



COURTESY EMILY PRZEKWAS

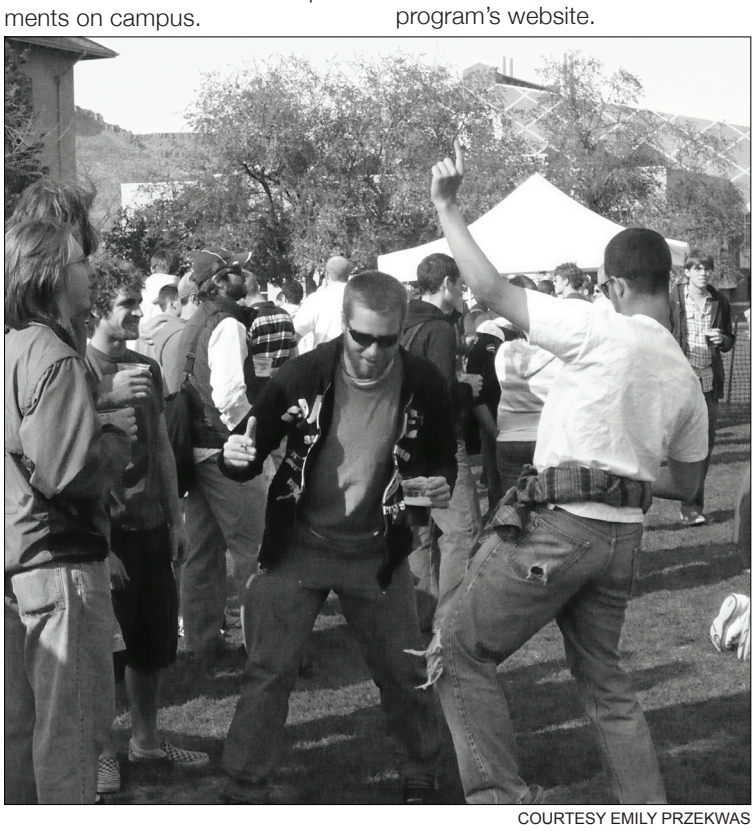
All together. Bands rock through the afternoon, encouraging a festive atmosphere while students investigate sustainability presentations.

To lower costs further, EH&S is "rebidding recycling and trash pickups, and the bidding is finishing tomorrow [Friday, April 25]".

The recycling program so far has had little publicity, and the majority of students do not know about it. EH&S is "working with EPICS teams to inform students." These student groups are developing better marketing methods and redesigning the recycling program's website.

Currently EH&S feels the recycling program does not have much coordination. "Once recycling and trash facilities are moved to the Ford building, hopefully we will have more coordination," said Havelick.

After gaining the new facilities, some new possibilities are being looked into for recycling abilities. One idea is getting a compactor for baling cardboard. The baled cardboard can then be sold for recycling to help lower program costs. A similar idea is being looked at for purchasing a machine to granulate plastic and recycle it more easily.



COURTESY EMILY PRZEKWAS

Dancing Hippies. CSM students dance the afternoon away during the Climate Action Days concert on Friday afternoon.

CSM President speaks at climate change symposium

Zach Aman
Editor-in-Chief

COURTESY CAROL CHAPMAN

"Climate change has been going on since this earth was formed," said Dr. Myles Scoggins, President of the Colorado School of Mines, at last week's Climate Change Symposium.

"Now, the real focus is on the pace of emissions and our ability to forecast various impacts and the timeframe in which they occur," he said.

Scoggins explained that the scale and solution timeframe are primary challenges facing the climate change debate. "We always have the opportunity through our technology, but it's the issue of dealing with our existing infrastructure."

"I think Mines has a clear role to play in this regard on three fronts," said Scoggins. Academically, the school must equip students to handle the technical and policy sides of the debate. Second, Scoggins discussed the "research mission" of the institution and its ability to both refine existing fuel sources and design new ones. Third, he illuminated the role of sustainability on the CSM campus and Golden community. "A key part of the engineer's mission is to recognize alternatives and prioritize them," said Scoggins. "We need to assess our carbon footprint and examine our own sustainability."

"One of the key tools that our students should leave here with is an understanding of 'best practices' in their areas of expertise," said Scoggins. "That's a key focus of most industries."

In response to one audience question, Scoggins also said that this particular issue is not necessarily a decision of CSM's Board of Trustees; he encouraged students, faculty, and administrators to take the lead on change. "In terms of the strategic direction of the university, that [change] is really up to us," he said. "We are in charge of what we want to do."

Professor Masami Nakagawa of the Mining Engineering Department questioned the methodology of how the institution will implement changes toward sustainability. "We're looking at [adding] a position that would be a campus-wide focus for helping us add campus-wide initiatives," said Scoggins. "The biggest challenge we have is turning words into prudent, sustainable action."

Former Golden Mayor Chuck Baroch added that poor forecasting and lax cost-benefit analysis are primary problems facing the institution. "Water was a big deal in the 1950s, but we learned how to conserve and we learned how to put in dams," said Baroch.

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Earth Day Festival celebrates innovation and sustainability

Event closes out Climate Action Days at CSM

Jake Rezac
Staff Writer

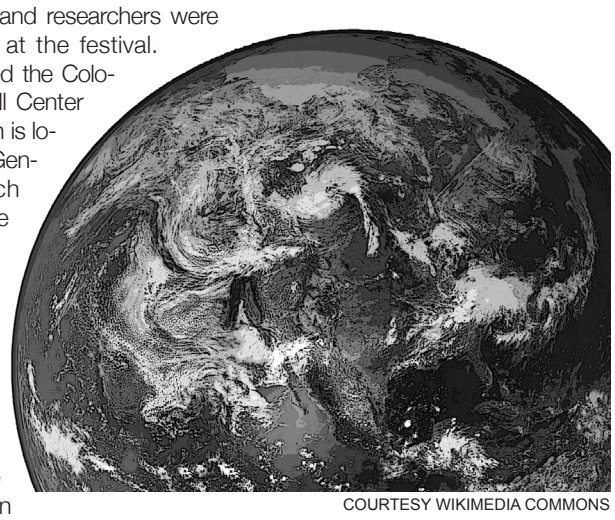
"Out motto is to make a small difference, today," said Sean McVay, owner of Colorado company All Things Renewable. McVay, along with a number of other climate-oriented retailers and scientists, spoke at the Earthworks Earth Day Festival on Kafadar Commons last Friday, April 25th. The festival was part of Climate Action Days, the week-long set of festivities, lectures, and movies put on by the CSM Sustainability Committee, the Student Council on Sustainability, Engineers for a Better World, and Earthworks.

Many of the presenters at the Earth Day Festival were focused on demonstrating what could be done in the future with the alternative energy sources available today. Among this group was Dennis Weaver of Intergalactic Hydrogen, with his H_2 H_2 – a hydrogen-powered Hummer. The Hummer, which can run on hydrogen, methane, ethanol, biodiesel, and other alternative energy fuels, was driven from Utah to Mines. This wasn't a new feat for Weaver, who has driven his hummer from Los Angeles to Denver, and all across the United States. "Our goal is to not use petroleum," Weaver said. "We could've chosen a better vehicle, but this one generates more attention. Its emissions, though, are lower than a Toyota Prius."

Another forward-looking retailer was All Thing Renewable. This company is looking for solutions now for homes and commercial entities. Their display included a 40-watt solar panel, a 400-watt wind turbine, and an electric composter. The fist two of these, according to owner Sean McVay, "are perfect for an RV or other, somewhat small, energy needs." The company started when McVay noticed there was no place to find information on a solar panel installation, other than the internet. "We wanted to take what was on the web, and cover everything in a store you could walk into," McVay said. Currently, there are two of these stores in Colorado, with two more on the way. These are in the Colorado Mills Mall, the Flatirons Crossing Mall, with one opening at Northfield at Stapleton in May, and another at 29th St in Boulder.

Scientists and researchers were also present at the festival. These included the Colorado Fuel Cell Center (CFCC), which is located in the General Research Labs on the Mines campus. According to CFCC director Neal Sullivan, "We work with local business clusters… and these clusters can just explode. There are a lot of Colorado industries and companies that people don't know about [related to fuel cell research]." CFCC works with these companies for research, development, commercialization, and business promotion. Many graduate students who work at the CFCC while at Mines go onto work for these companies.

The Earthworks Earth Day Festival attracted many students – in part due to free food, drinks, and live music. However, the retailers and researchers also received a large amount of attention. The presenters had a good chance to achieve what McVay described as "letting people know what technologies are available, so that they can develop new ones while they're at a school like this."



COURTESY WIKIMEDIA COMMONS

Order of Omega designates faculty appreciation awards

Karlyn Adams
Guest Writer

At the annual Faculty Appreciation Luncheon on April 16th, several faculty and staff were recognized for their outstanding performance this past year by Order of Omega, a Greek honor society. We feel that each of this year's winners have shown a dedication to CSM's students that is unparalleled.

Gus Greivel is a graduate from CSM and has been teaching on campus for the Math Department on and off since his graduation. He currently coordinates all of the transfer credit for Calc I-III and teaches classes such as Calculus and Probability and Statistics. His students are quick to notice his dedication both in his teaching and his willingness to advise students outside of the classroom.

Dr. Stephen Boyes is an assistant professor in the chemistry department, teaching Intro to Polymer Science and Advanced Polymer Science. Dr. Boyes and his research group perform research in polymer chemistry, specifically in the area of creating polymer modified surfaces for drug delivery and inorganic-organic hybrid photovoltaic devices. Dr. Boyes has been a professor at the Colorado School of Mines since 2005.

Dr. Hsia-Po (Vince) Kuo, a lecturer in the Physics department, has been assigned with the daunting task of overhauling CSM's Physics II program. Signing on with CSM a few years ago, he comes equipped with a master's degree in physics and extensive doctorate and post-doctorate work in teaching physics fundamentals. Through the more effective use of the Physics II studio program he hopes to build students' critical thinking skills in an open, hands-on setting.

Dr. Neal Sullivan is an associate professor in the Mechanical Engineering program. Along with teaching the entire Engineering Fluids I course, he heads CSM's fuel cell research program. However, the students in his class note most his ability to break down complex ideas and give students the ability to "become the ninja," i.e. give his students ample problem solving tools to allow them to be "self-respecting Ore-diggers." His dedication and passion is seen in everything he commits himself to on campus.

Teddie Shearer, a part of the Student Life Custodial Staff, has been maintaining CSM's sorority houses for several years. She always has a smile on her face and a story to share. Even when tasked with many other assignments around campus, she is always willing to bring a smile to your face.

The passion and commitment from faculty such as these are essential in making our school great. We are proud to have such wonderful teachers, mentors, and friends at CSM. Thank you to all the faculty and staff for your hard work this year, we are all grateful for your time and energy!

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GREEN TIP OF THE WEEK

Natalie Wagner
Staff Writer

This week's theme is "Spring's Sprung." The tips below are for a more community oriented and stress-less Spring:

- Are you feeling the spring in your veins and needing to see some outdoor action? Well, instead of using your nice gear and sneaking in a few runs, try something totally different – **Volunteer at a local farm sanctuary/ pet shelter**! There are places like this located all over Colorado (at the very least in places like Boulder and Colorado Springs). Check out muttcats.com/shelters/colorado.htm for more locations that need your loving time, and you will get great stress reducers in addition to just feeling good for a day.

- **Natural Fences, etc**. It is the time of the year for garden work, and while most of us students may not own a place, it is always nice to get your hands dirty. Feel free to offer your arm-power to your landlords, folks, significant other's folks, etc. And be sure to encourage them to give up on the dead wood fences and instead invest in some CO_2-sucking living fences and garden enhancements.

- Needing some new items in your wardrobe? **Think eco-friendly fabrics-** instead of opting for the classic herbicide, pesticide, and other chemically drenched cottons (conventional cotton uses more insecticides than any other crop on earth, www.panna.org/files/conventionalCotton.dv.html) that are so easy to get at Target, the time has come to make a more enlightened choice. Think bamboo or hemp fabrics, organic silk, and even reclaimed fabrics - as these are sustainable crops, and don't have all the botanical shortcomings of cotton. These amazing creations are readily available at the following locations: Victoria Secret, Patagonia, Gaiam Intimates, and more!

ZACH AMAN / OREDIGGER

TECH BREAK ... with Ian Littman

Freebie alternatives to common applications

So you want a word processor, but you don't want to pay for Word. You want Adobe Photoshop, but don't want to pay the price. You want a computer, but don't want to pay for Windows. What to do? Get free software, of course.

1. OpenOffice

Why spend a ton on Microsoft Office when something else will do that same job for free? OpenOffice is actually easier to use than Microsoft's Office 2007, and includes lots of features. OpenOffice actually has more applications than a few versions of Office: it not only has word processing, spreadsheet and presentation software, but it gives you an equation editor and a database manager. All this for free. (www.openoffice.org)

2. AbiWord

Need something in place of Word that doesn't cost quite that much? How about a word processor that's faster to load than the one included with OpenOffice? Enter AbiWord. It's fast, it's small, it's advanced, and it's free. As an added bonus, it'll work not only on Windows, but also on Linux and Mac OS X. (www.abisource.com)

3. Mozilla Thunderbird + Lightning

Need something to manage your appointments and email but don't want to shell out for Outlook? Try Mozilla Thunderbird, plus the Lightning extension. Thunderbird gets you high-quality, high-speed e-mail with lots of great features that, again, work on whatever operating system you're using (in fact, all four of the programs mentioned here are completely "cross platform") while Lightning gets you a very serviceable calendaring program. Have Need-To-Do's? Lightning does that, too. (www.mozilla.com, snurl.com/mozlightning)

4. The GIMP

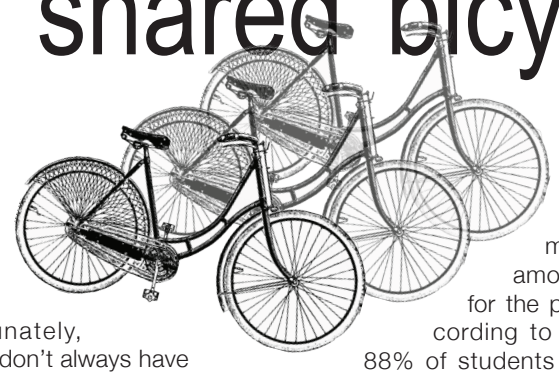
Move over, Photoshop. The GIMP gives a pretty good swath of Photoshop's abilities for an unbeatable price: zippo. Sure, it works a bit differently than Photoshop, but it's not that hard to use and it'll edit your images for nothing. (www.gimp.org)

5. Linux

Whether you're using a PC or a Mac (now that Macs are Intel-enabled) Linux is an option instead of the other two operating systems, especially if you've got a computer and don't have Windows to put onto it. Linux has come a long way in recent years in terms of usability, so that now you can actually use it for day-to-day work without being a complete geek. Particularly adept at this sort of usability is the latest version of Ubuntu (www.ubuntu.org). It's so easy to use that Dell is even including it on some of their computers. Oh, and all the software above is either available or included right when you install Ubuntu. While Linux junkies will run over me with complaints about the system, it's really great for someone who doesn't walk around with a slide rule in their back pocket, though I make gross generalizations about the Linux crowd.

So check out these pieces of software if you want something to process your words, spread your sheets, power your points, or shop your photos. Or you can operate your system. All for naught, money-wise.

The CSM shared bicycle proposal



Ricky Walker
Staff Writer

Everyone knows the feeling. It strikes as you are walking in the brisk morning air on the way to your 8:00 class. As the morning breeze blows the leaves calmly across the sidewalk, you look down at your watch, and suddenly realize, "Oh my gosh! Class starts in two minutes!" Suddenly panic overcomes you as you remember the professor threatening to fail the next person who is more than 10 seconds late to his most sacred class.

Worrying about the fate that awaits you, your mind begins to frantically search for options. "Perhaps I should run?" you think aloud. For a brief moment your legs begin to sprint, however the chilly morning air and the painful shortness of breath in your lungs remind you that the classroom is on the other side of campus and that there are better odds of passing out in Kafadar Commons than making it to class on time. "Should I just skip class?" you begin to wonder. "I can just say that I was sick!" The plan seems perfect. But then, as was almost certain, you realize the fatal flaw in your scheme—there is a quiz today. Your worries begin to degrade into panic. The future looks grim.

But wait! Suddenly, you remember the CSM Shared Bike Program that was implemented right on schedule in December, 2008! You dash over to the automated bike rack at the CTLM. After scanning your blaster card through the card reader, a bike is unlocked and you race off to your next class at 20 miles per hour. As the air whips through your hair, you think to yourself, "That was the best five dollar tuition fee I've ever spent."

Disasters such as this happen all too often on the CSM campus. Unfortunately, they don't always have such a happy ending. As of right now the CSM Shared Bike Program exists more on paper than it does in reality. But, that is changing. Recently, there has been a coordinated effort by several EPICS II teams to determine the feasibility of implementing a shared bike program on the campus, and the results are promising.

Dr. Bob Knecht, Director of the EPICS department, outlined the details that would go into implementing a shared bike program on campus as part of last week's Climate Action Days. His presentation covered acquiring sites to put the bikes, possible methods of operating the program, marketing techniques, and the engineering aspects involved with acquisition and maintenance of the bicycles.

According to polling data conducted by some of the teams, the most probable places the program would start would be in high traffic areas such as the CTLM, the Student Center, and near Coolbaugh Hall. The bottom line would be that a student could simply check out a bike with their Blastercard, ride it to another campus location, and leave it at a designated bicycle rack, removing the need to return the bike to its former location.

Dr. Knecht expressed that in an ideal world, the bikes could be free for students to ride around campus without worrying about the need to "check out" the bikes, but previous experience of other campuses showed that systems such as this break down. When implemented, the system will need security, simply due to the fact that people steal the bikes.

Polling data also showed enormous support among students for the program. According to the polling, 88% of students on campus said they would use the program, and 73% of students off campus said they would also be interested. In addition, 90% of all students said that they would not mind the $5 tuition fee to help maintain the program.

So fear not, my tardy-prone colleagues—help is on the way. According to Dr. Knecht, it is realistic that the program may be implemented in time for the fall semester. Until then, just set your alarm earlier.

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Choir and band showcase the musical side of CSM with spring performance

Tim Weilert
Content Manager

Mines students have been unjustly stereotyped as "uncreative." Within the last month CSM has seen the release of the newest issue of ***High Grade***, stellar performances by Mines Little Theater, and most recently, the spring concert for the CSM Choir and Band. The band program, which was started over 50 years ago, has seen a variety of manifestations and performance venues, from football games to concert halls. The choir, which also has a rich history of performance and excellence, opened the night.

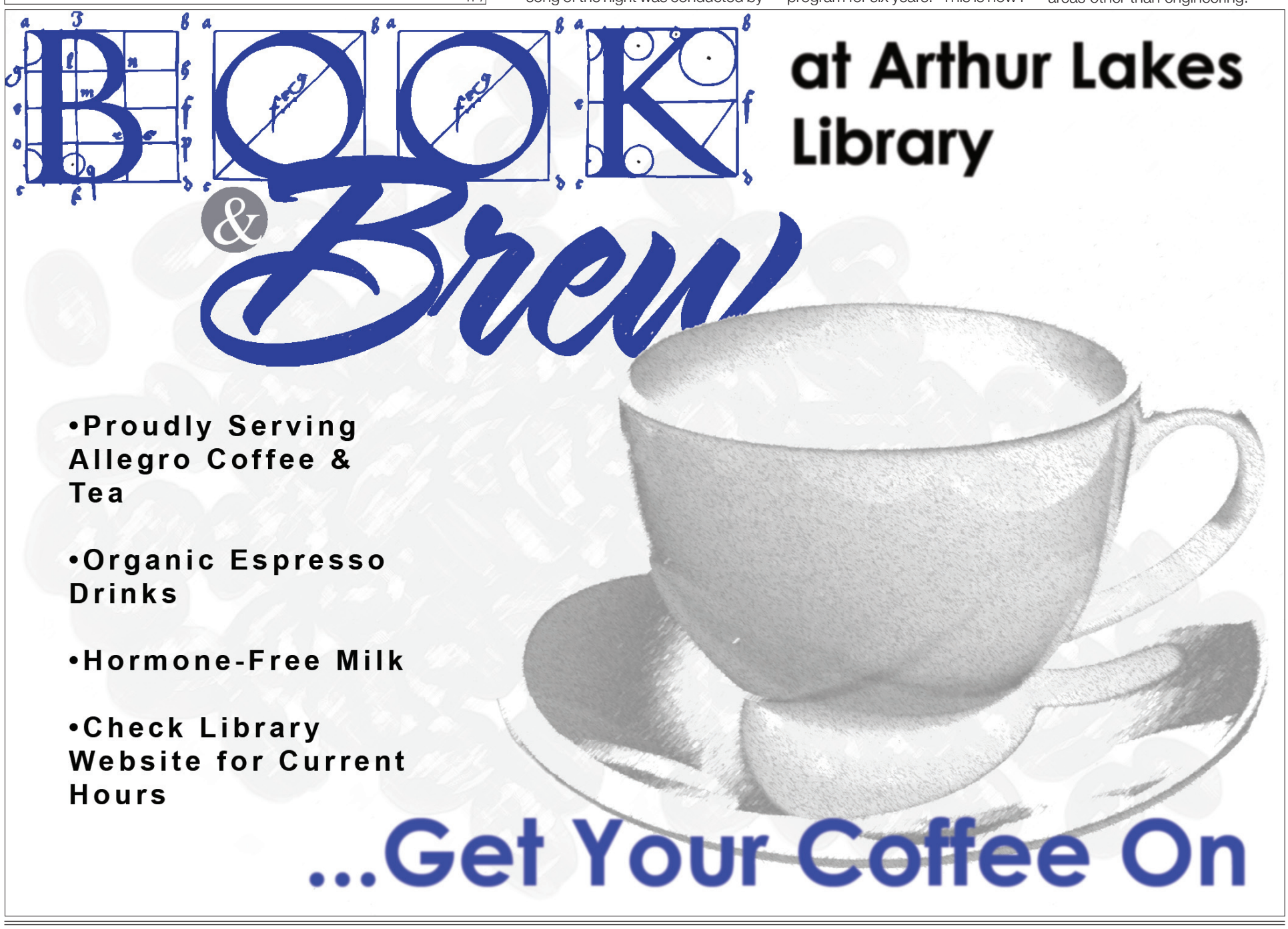
As the Melodic Majors and Minors finished their harmonious rendition of "Lollipop," the main chorus took the stage. As they filled Bunker Auditorium with the sounds of unamplified, a capella voices, a certain sense of wonder came over the audience. Although Latin may be a dead language, the words came alive during the choral rendition of Carl Orf's "Carmina Burana." The selected pieces ranged from traditional songs to modern music. The finale, Queen's "Bohemian Rhapsody," was an enjoyable take on a classic rock ballad.

TIM WEILERT/OREDIGGER

Following the choir, the Flute Choir took center stage. The selections of Vivaldi's "Four Seasons" were played with a gentle grace and fluid harmony. Finally, the main Concert Band performed their set. "This piece was written by a trombonist," said director Robert Klimek. "He wrote it for the opening of a hat shop his wife had opened. Unfortunately the shop closed down after only about a month, I think they must have spent all their money on hiring a band." Klimek proceeded to conduct two pieces written by David Bobrowitz, followed by a piece by Tschaikovsky. At this point Klimek addressed the audience again. "The composer's notes for the next piece state that this song is intended to 'drive percussionists nuts.'" A rousing and energetic rendition of Andrew Boysen Jr.'s "Relentless" followed. The final song of the night was conducted by graduating drum major Chase Ruff. Klimek introduced the final number by saying, "We've had a theme song. Whether it's a patriotic event, Mother's Day, a salute to heroes, or any occasion, our theme shows up. Pirates!" With those words, Klimek invited Ruff to conduct the theme from "Pirates of the Caribbean." As the show ended the band played an energizing and spirited version of the CSM fight song.

The spring concert was a bittersweet occasion for the music program at Mines as the LAIS department celebrated their graduating musicians. Andrew Cavendor, a graduate student and French horn player, was involved with the music program for six years. "This is how I was able to stay sane," said Cavendor. "Not only do you get about 60 new friends, but you have the ability to see different aspects of Mines that you wouldn't normally get to experience. Playing for alumni has always been enjoyable, because of the school spirit and pride that is involved." Michael Krizmanic, another graduating member, played trumpet with the band during his entire college experience. "Tonight I really enjoyed the whole performance, because everything came together," said Krizmanic.

As one of the top artistic events of the spring semester, the choir and band concert showed that Mines students can be successful in areas other than engineering.



Geek of the Week: Matthew "MattMatt" Vigil, Freshman: Fun-Decided

Greg Smith
Staff Writer

[Oredigger] Where did 'Matt-Matt' come from?

[Vigil] Well because it's like Matt, right? But it's like twice as fun!

Tell me something very geeky about yourself.

I beat Super Mario Brothers without using any of the warp tunnels. All 8 glorious worlds of it.

When did you know you were a geek?

When everyone would come to me for the answers to the math problems in school.

What do you think is the coolest thing in science?

Blowin' shit up, or string theory.

What do want to do after you graduate?

Travel the world and meet sexy and interesting people with cool accents.

To what extremes have you gone for schoolwork?

I've run off of 4 hours of sleep for like 2 weeks straight.

Who is your role model?

Green Lantern is pretty cool, I mean he's go that ring and all – are you gonna put that?

What is the geekiest thing you own?

A calculator watch.

Do you know what IEEE 1394 means?

Isn't that the name of a robot in star wars? Yeah, I think it is.

Are you into geeky women, or men?

Girls with glasses are hot … like, for real.

What is your favorite book?

Lord of the Rings or *Fear and Loathing in Las Vegas*.

What is the difference between a geek and a nerd?

Geeks get stuff done; nerds just sit on chatrooms and talk 1337 a lot.

What's your pet peeve at Mines?

Too much work and not enough sleep makes Matt a dull boy.

GREG SMITH / OREDIGGER

Geek-i-fied. Matthew is terrified of the invisible gun at his temple.

Music Review: Colin Meloy Sings Live!

Jake Rezac
Staff Writer

Colin Meloy, lead singer of Portland band The Decemberists, released his first solo album, ***Colin Meloy Sings Live!*** on April 8th. The album is a compilation of live performances from his 2006 solo tour; these songs range from Decemberists favorites and works from Meloy's pre-Decemberists band, Tarkio, to covers of The Smiths, Fleetwood Mac, and Shirley Collins.

The album begins with a track from Tarkio, entitled "Devil's Elbow." It sounds, like a Decemberists song, similar to nearly all of the songs on the album. However, because The Decemberists often obfuscate their songs with over-instrumentation, Meloy's version of "Devil's Elbow" produces an intimacy which The Decemberists cannot achieve as a collective. Meloy himself entertains this idea in a recorded address to the crowd, when he talks about how his solo tour is like singing around a campfire.

Continuing in the pattern of song followed by Meloy talking to his crowd, the album feels almost like a live performance for the listener. The songs, while all sounding very similar, are quintessential modern folk-indie-rock pieces. Furthermore, the spoken interludes demonstrate the experience correlating with a live performance of Meloy. This becomes pertinent during a performance of what Meloy calls "the worst song I ever wrote." "Dracula's Daughter" – which is about a minute of terrible songwriting, with Meloy intermittently commenting on how bad the song sounds – is an example of a song that would never be put on a studio album, but which makes for a great live show.

Meloy's acoustic guitar versions of many of the band's songs make this a must-have for any fans of The Decemberists. However, the songs are also good enough to stand on their own, and are an enjoyable listen for anyone who likes indie-folk music. Along with the atmosphere provided by Meloy's comments to the crowd, the album is an intimate portrayal of what a live Colin Meloy tour stop would be. It accomplishes a few rare feats for a live album – it focuses enough on the singer to add an element studio albums don't have, while still being full of interesting and well-written music.

Bagpipes fill Arthur Lakes Library

William Everson
Staff Writer

The music of the bagpipe was in full swing at the last *Concerts in the Library* performance of the school year.

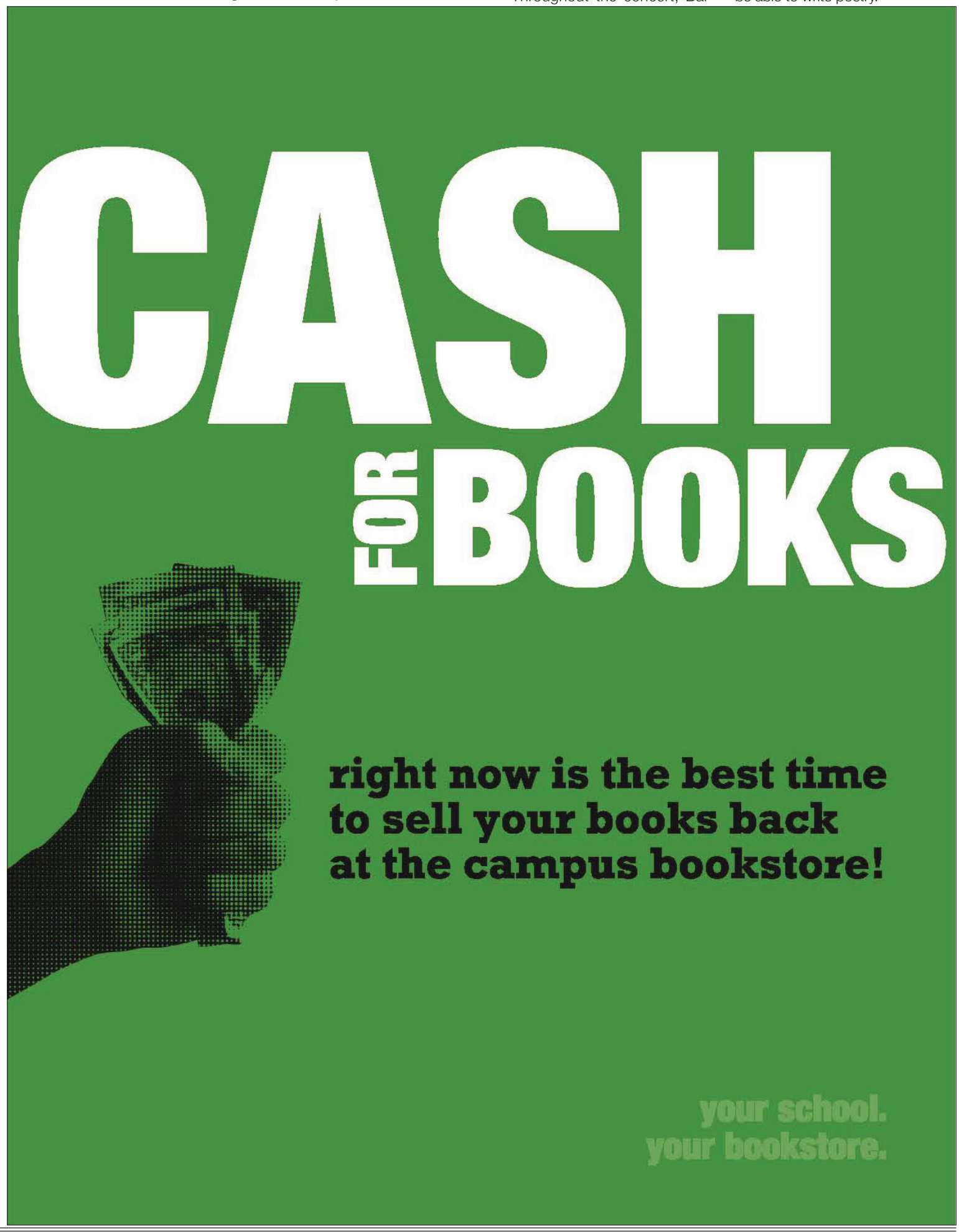
Performed by CSM undergraduate Ryan Balchuck, the concert featured a range of musical styles. Balchuck started playing the bagpipes when he was just seven years old and has continued his passion for the instrument by performing nationwide. He has won numerous awards and is currently playing in the grade II bracket. Balchuck is a member of the Colorado Springs-based *Colorado Skye Pipes and Drums,* who perform at competitions as well as private gatherings.

The concert started off with the classic marches *Scotland the Brave* and *The Green Hills of Tyrol*, followed by a set of other stoic marches. Following the powerful themes of the marches were a series of lighter dance tunes that showed the energy and excitement that bagpipes can evoke.

Throughout the concert, Balchuck gave the audience insight into the art by explaining some of the nuances and absolutes of playing the bagpipes. "I found the concert to be educational while also being a joy to listen to," said one attendee.

With most of the songs lasting less than two minutes, the hour seemed to be filled with every different style of song available. Many audience members concluded that the variety added to the concert's liveliness and energy. The event finished with a plethora of harmonic tunes, culminating in the ever popular *Amazing Grace,* composed specifically for bagpipe. Overall, the concert turned out to be highly enjoyable for those who attended. "It was a great way to spend lunch," said another audience member.

Even though the semester will be over, those students and staff staying around for the summer can experience the next *Concert in the Library* on May 16th at 12:00 in the Boettcher Room of Arthur Lakes Library. It will feature a poetry reading and workshop where attendees will be able to write poetry.



2008 NFL Draft offers few surprises

Matthew Pusard
Content Manager

For months, football fanatics have been reading mock drafts and watching footage from the combine in anticipation of the off season's biggest event, the draft. ESPN became rife with speculation about the final destinations of some of the league's future stars like RB Darren McFadden or QB Matt Ryan. The best players were constantly ranked and reranked with any tiny bit of new information. The consensus determined that many players like OT Jake Long, DE Chris Long, and DE Vernon Gholston were to be some of the top few picks. But the "experts" are rarely right about the top picks, as evidenced by Brady Quinn's dramatic drop in the first round last year.

This year, it seemed as if everything went according to plan for once. Jake Long was signed by the Dolphins far in advance of the draft to the largest contract for an offensive lineman in the NFL. The rest played out like predicted. The Rams, in need of a defensive line, took Chris Long and the Falcons took Matt Ryan as the heir to Michael Vick's tainted throne. Then, the Raiders took Darren McFadden, one of the few players who openly admitted a desire to be a Raider. It wasn't until the eighth pick until the draft was shaken up slightly. Jacksonville traded up with Baltimore to take DE Derrick Harvey, the fifth defensive lineman taken. The trade up was a bit of a reach, but Harvey was the last good lineman left and defensive end was one of the pieces Jacksonville sorely needed last season.

The biggest change was a 10 minute time limit for draft picks in the first round, five fewer than last year. It really sped things up and made the draft more bearable to watch for NFL fanatics. The third round was also moved to the second day of picks on Sunday.

On the home front, the Broncos had an uneventful but promising first two picks. Their first round pick was a left tackle from the Boise State Broncos named Ryan Clady. Clady became the first first round pick to come from Boise State after the school's recent emergence on the college football scene. Clady was the second overall offensive lineman taken and is adept at Denver's zone blocking scheme. The big knock on Clady is that he is relatively untested against NFL-level talent. Reports have also come out that he scored poorly on the Wonderlic intelligence tests. However, there is some speculation that Clady has a higher ceiling than Jake Long and even last year's Pro Bowl lineman, Joe Thomas.

Denver's second rounder also shows sufficient promise. The Broncos have had horrific special teams play for years, but WR Eddie Royal might change that. Royal was the fifth fastest wide receiver at the combine and has a knack for kick and punt returning. The NFL is a copycat league and the Broncos are looking for their version of Devin Hester. Royal likely won't be anywhere close to Hester, but if he plays like he did in college, the Broncos special teams could soon become a strength.

Sabermetrics: A geekier side of sports

Matthew Pusard
Content Manager

Statistics lie. It's not that all statistics are necessarily inaccurate, but they often convey the wrong message. This is especially prevalent in baseball. The holy grail of stats in baseball is and has always been batting average, runs batted in, and home runs. They constitute baseball's Triple Crown. But they don't tell the whole truth. While the greatest hitters in the game, like Alex Rodriguez, Albert Pujols, and Miguel Cabrera, usually have great numbers in all three, there are also some less talented individuals who also post great numbers in those categories.

Take Brad Hawpe, for example. While he's a great hitter, he's not even top 3 three on his team in terms of hitting, much less in the league of Pujols. And yet, Hawpe put up 29 home runs with 116 RBI last year while he batted .291. Pujols similarly put up a line of 32/106/.321. Hawpe wins at RBI, Pujol wins at batting average, and the duo are equals in homers. But does that make them equals?

According to Bill James, the father of "Sabermetrics", not even close. Sabermetrics are named for the Society for American Baseball Research, or SABR, of which James is a member. Other notable sports fans such as Bob Costas and former ESPN anchor Keith Olbermann are also part of the illustrious group. The society's mission is to "foster the study of baseball past and present, and to provide an outlet for educational, historical and research information about the game." James does this with his Sabermetric analysis as it emphasizes objective ways to quantify baseball and analyze the causes of wins and losses in baseball. Recently, James has gotten some well deserved publicity for his method of statistical analysis on "60 Minutes." He was hired on with the Boston Red Sox in 2003 as a special advisor and his methods, which were employed by Sox General Manager Theo Epstein, are largely credited with helping the team to two World Series titles.

Under Sabermetrics, a better correlation, like OPS (On Base Percentage + Slugging Percentage), shows that Pujols, with a .997 OPS, was a healthy margin better than Hawpe, with a .926 OPS. But what makes OPS better? It counts everything important in the game. Walks, doubles, and triples are not accounted for with any of the traditional Triple Crown stats. These are not small parts of the game. How is a walk different from a single? It's less flashy, but ultimately, the results remain the same. On Base Percentage, or OBP, accounts for this fact. It measures the total amount of times a player gets on base, including times hit by pitch, and divides it by the total plate appearances by a player. So while even the greatest players get a hit one third of the time, the best players get on base over 40% of the time. That's a significant step up.

RBI are also subjective. It relies too much on a team's performance and not an individual player. An average hitter on a good offence (like Boston's Mike Lowell with 120 in 2007) can drive in as many runs as a good player on a bad offense (like Florida's Cabrera with 119) just because his teammates get on base more.

Also, while "chicks dig the long ball," at least according to a popular Nike ad featuring Greg Maddux and Tom Glavine, a double is useful too. It puts at least one runner in scoring position and has a higher chance of scoring runs than a single. And yet, it's not better than a single and no worse than a triple according to traditional statistics. Slugging percentage, or SLG, gives a weighted average of these hits according to the number of bases they gain. A home run is a 4, a double is a 2, and an out is a 0.

When the two are combined, every play is accounted for and every good play is weighted. But it's not perfect. From there, the statistical analysis explodes.

This Sabermetric method is all about correlations and the stat guys try to account for everything. They adjust stats to account for differences in each stadium by using Park Factor by weighing runs scored in games at a certain park versus games scored away from that park. This park factor is used to convert everything from OPS, Earned Run Average (ERA), and other, more complex stats into an adjusted OPS+, ERA+, and the like. Range factor accounts for assists and outs made defensively per nine innings. Win shares attempts to quantify how many wins an individual player adds to a team in a given season. The statistics get more and more complex as times goes on. There is even a stat out there, Value Over Replacement Player (VORP), which rates the value of one player compared to an arbitrary league average player.

And the objective analysis phenomenon is spreading. In baseball, the leading current websites in this field are BaseballProspectus.com and Baseball-Reference.com, which are both taking Bill James's philosophy farther and farther. In football, it's FootballOutsiders.com. This crew attempts to break down every play in the NFL season into positives and negatives and rate players and teams accordingly. Merely looking at touchdowns and yards gained is insufficient in their eyes, because while gaining five yards on 1st and 10 might be a success, gaining five yards on 3rd and 6 is a failure. Their system is not perfect, as shown by the Super Bowl Champion Giants being 16th on their rankings during this past season, but it is still a step up from conventional takes on football stats.

Maybe the most intriguing development, though, is in basketball, where the NBA is embracing these new statistical methods. While Sabermetrics is still ridiculed in baseball by the old timers, though it is slowly gaining acceptance, and still relatively unknown to the NFL, all NBA.com box scores now feature a Sabermetric-like Lenovo +/- Stat. As the NBA claims, "It's a way of showing the best-engineered/best combination of players on the court." It is a simplistic difference in points by the player's team when he is on the court minus points by the opponent's team, but it's a better way of seeing which players consistently help a team out. And there is even more in depth analysis going into points per possessions, which puts NBA stats more on a level of all things being equal. Case in point, the NBA leaders in points scored, the Denver Nuggets, score so much not because of having the most points per possessions (112.3 per 100 possessions, good for 10th in the league), but because they average the most possessions per game (98.0). But they are also 10th in points allowed per possession (107.7 per 100) so their defense isn't as awful as the final scores usually indicate.

The stats will only get more complex, but it's a fun way for people to gain newfound appreciation for the game. Bill James was a night watchman when he first started publishing his ideas about baseball stats. Now, he works with one of the most renowned teams in baseball. Many other statistical analyzers from Baseball Prospectus and the like have been scooped up recently and many teams have a full time statistical analyst these days. It's an ever-growing field and it's bringing a whole new breed of fan into the world of sports.

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A system to make webmail obsolete

Ian Littman
Tech Break Columnist

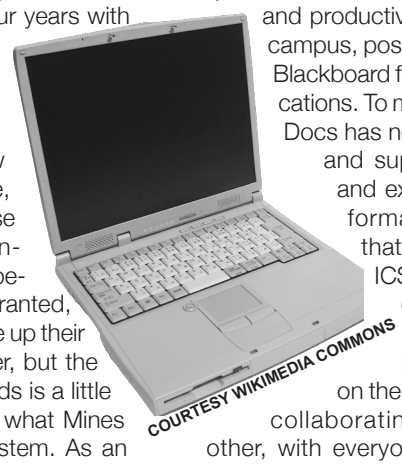
Has anyone noticed that the Mines e-mail system is rather slow, old-looking, and unreliable? I'm placing my bets that the techs who have spent at least several hours this month fighting virtual fires have. I've certainly noticed over the past two semesters when I've inexplicably been unable to login to webmail. Add to that the service outages maybe once a month for planned maintenance and expansion, and you've got a system that doesn't even come close to "three nines" of reliability that any modern web system should realize. How do you get to 99.9% reliability when services fail under the load of 500 megabyte mailboxes for thousands of users and require hours of time to get back working?

One word: Google. Let me explain.

Google has an "on your domain" service called Google Apps, which basically replicates the entire Google experience, but tailored to a business or educational institution, with their e-mail addresses, their logins, etc. I have personally used the business-centric free edition for three websites now, one of them very small but the other two medium-sized in scope. One was a small business and the other Mark Eberhart's EPICS class. The system is remarkably easy to use and could replace, or enhance, more than just Mines's e-mail system. Also, the educational version of the service has both more features than the free version and the same monetary costs of the free version of Google Apps.

To start off with the benefits of Google Apps, Gmail is probably the most full-featured webmail service out there, closely followed at this point by Yahoo's new webmail, Windows Live Hotmail, and AIM Mail. Then again, none of the other services offers a full-featured on-your-domain system gratis. Anyway, Gmail has a message storage limit of a little over 6.6 GB as of this writing, and it's climbing. I have personally used, over the course of nearly four years with the service, about 779 MB of storage. This means that, if expansion were to stop now on the mailbox size, I could probably use the service for another twenty years before I hit the limit. Granted, other people will use up their storage much faster, but the storage Gmail affords is a little over thirteen times what Mines can offer via its system. As an added bonus, the Gmail system promises 99.9% uptime with no database babysitting, server management, or other work required.

> Gmail is probably the most full-featured webmail service out there


COURTESY WIKIMEDIA COMMONS

Next up we have Google Talk, a powerful instant messaging client built right into Gmail. Instead of having to deal with random screen names on the top two IM services (AIM and Yahoo/Windows Live), the Google Talk username is the same as the e-mail address. The Google Talk client is small and enables voice communications and file transfers, among other great features. All in all, it's great for collaboration and can be used on pretty much any platform.

Third, and probably most important next to e-mail, is the Google Docs system. The web office suite allows for real time collaboration in some places and semi-real time in others, complete with in-document chat, and would decrease the need for shuttling documents around via e-mail for changes and generally increase collaboration ability and productivity across the campus, possibly replacing Blackboard for some applications. To my knowledge, Docs has no storage limit and supports import and export to major formats, meaning that, say, an EPICS group could construct a PowerPoint presentation on their project while collaborating with each other, with everyone having an up-to-date copy, with minimal time and effort. This has been the second-biggest service I've used on Google Apps deployments, next to e-mail.

There are other great features of the Google Apps suite, like website building, collaborative site creation (they bought JotSpot), and a personalized start page, all for free. But what's the catch? Nothing as far as the Google side of things go, but what about on the Mines side? I see two issues: integration and network traffic.

Fortunately, the integration issue is solved, courtesy Google. APIs and other tools make for single sign-in capability and relatively easy migration from the current systems Mines is using. As a case in point, WildBlue (the satellite provider) has switched their services for e-mail etc., over to Google with little ill effect. So this (major) concern is allayed. Also, e-mail lists and users are trivial to add (the latter en masse if needed) via Google's administrative UI.

> The resources freed on campus ... are probably enough that Mines could significantly improve internet connectivity with the funds saved.

The other concern may take more effort to solve: network access. Then again, things may be fine. Gmail allows for POP3 and IMAP mail retrieval so users need not log in to webmail every time they want to use the service, so bandwidth usage increases will be minor in that area. For the people who do decide to use webmail, there will be an appreciable amount of traffic on the network, but considering the lack of rich media in Gmail as compared to other websites that are off of Mines's local network, the traffic increase between Mines and the outside world for this purpose will only be a few percent. Plus, the resources freed on campus in terms of servers, server space, energy and cooling costs and personnel for the e-mail and other systems are probably enough that Mines could significantly improve internet connectivity with the funds saved.

I'm not sure how many mail servers Mines has, but the energy savings in a month or two could probably pay for enough manpower to completely migrate the Mines mail system to Gmail. No more Tech Fee proposals for new mail servers, increased productivity as a result of built-in collaboration on Google Docs and on Google Talk, thirteen times the e-mail storage and the fact that the service is completely free and easier to use for people accustomed to Gmail anyway (probably a majority of incoming students, at least). It sounds like an absolute win-win to me to switch Mines's e-mail systems (and other systems as well) to what seems to be the hosted solutions provider of the future, Google, especially since no late-night electronic firefighting will be required thenceforth on that system.

Earth Day: Not just for hippies anymore

Tim Weilert
Content Manager

It was during the 1960's when the late Senator Gaylord Nelson noticed a problem. The state of the environment had begun to slip, and unless something was done, things would only get worse. The full story is available at http://earthday.envirolink.org/history.html, but here are a few highlights. According to Nelson, "…the state of our environment was simply a non-issue in the politics of the country… At the time, anti-Vietnam War demonstrations, called 'teach-ins,' had spread to college campuses all across the nation. Suddenly, the idea occurred to me - why not organize a huge grassroots protest over what was happening to our environment?" And so it happened, the very first Earth Day took off. It had begun in one senator's mind and become reality on college campuses across the country. Nelson was astounded: "Earth Day worked because of the spontaneous response at the grassroots level. We had neither the time nor resources to organize 20 million demonstrators and the thousands of schools and local communities that participated. That was the remarkable thing about Earth Day. It organized itself."

LILY GIDDINGS/OREDIGGER

The fact that Earth Day took off on a grassroots level may have caused some confusion with regards to how it all began. One big misconception is that hippies started Earth Day, and are still the primary celebrators. This could not be further from the truth. In fact, President George W. Bush even celebrated this last week by planting a tree and giving a speech concerning fuel economy in automobiles, dependence on foreign oil, and greenhouse gas emissions. This should serve as an example of how environmental issues should no longer fall under the realm of partisan politics.

Individuals in the government were not the only "non-hippies" celebrating Earth Day. Business magazine ***Fortune*** hosted a conference in L.A. to discuss a "green economy." Major players of industry were in attendance to discuss environmentally friendly resource usage. You may have even noticed something different on the internet. Google hopped on board the Earth Day movement by changing up their front page and encouraging users to celebrate. Also, Google partnered with education giant Scholastic to promote Earth Day in the nation's elementary schools. The entertainment industry also went green this past week. Magazine racks across the U.S. were filled with special environmentally-minded issues, and Conan O'Brien hosted a "green" episode of his late night television show featuring a performance by Radiohead, recorded in England. "Every time you fly to New York [from England], it's equivalent to driving your car for a whole year," said Radiohead lead singer Thom Yorke.

Hopefully these few examples show that Earth Day is no longer a grassroots movement on college campuses. I find it rather ironic that what began in the government and moved to college campuses, has returned to the government and industry. Taking care of the planet should not be a partisan issue, as seen by the relatively non-partisan participation in this year's Earth Day. I sincerely hope that this has not just been an appeal to popularity, but a true showing of the far-reaching influence of Earth Day.

Threat of the Weak
Deadly Silence

Andrew Aschenbrenner
Opinion Columnist

An event took place this past Friday called the National Day of Silence. It is coordinated, mostly in high schools around the country, by the Gay, Lesbian, and Straight Education Network, or GLSEN.

The title "Day of Silence" refers to the limitations put on people whose voices are silenced. The silent protest encourages students to take a stand against the harassment of and discrimination towards LGBT students. It's a rather simple protest, but a pretty powerful one.

This year's event was held in memory of a California 8th-grader named Lawrence King. King was shot and killed by a fellow classmate on February 12th because one of his classmates was upset that King had asked him to be his valentine.

Unfortunately, what happened to Lawrence King is not entirely rare. People are harassed and killed everyday because of who they are. Most Americans have an attitude that somehow the effects of racism and sexism are over because we are living in modern times. They are wrong.

Also weighed into the equation is whether or not King and others in his situation brought it on themselves. This goes back to an argument of respect and decency. But that point is moot. It does not matter how disrespectful or indecent someone's actions are. The reaction of others is what indicates maturity and morality, or immaturity and lack of mercy.

The deaths of people like King are insulted. When columnists, clergymen and others suggest that somehow the killing is justified, it is appalling. Some type of backwards, self-serving justice that is. Maybe I'm mistaken, but I remember something like "thou shalt not kill" in there somewhere. I don't remember any conditions to that commandment.

The very nature of this particular protest is interesting. It takes nonviolent action to a new level, but it points out something important. Many minority groups have been demonized and harassed because they did not have strong public advocacy. Thankfully, that changes.

A great deal of thanks is owed to such strong and moral men like Mahatma Gandhi and Martin Luther King, Jr. They recognized the high road, and they took it. Shouting doesn't bring you peace, and silence brings you death.

Are you silent? What do you see that troubles you? Things you know are wrong, but are ignored by you and others? Some advocacy groups would rather shout and harass and bomb buildings. Sadly, they are no different from what they are protesting.

We have a better model for protest. Men like MLK, Jr. and Gandhi showed us the wonders of nonviolence. It lets you listen while it sheds light on your opponents. It brings others to your cause.

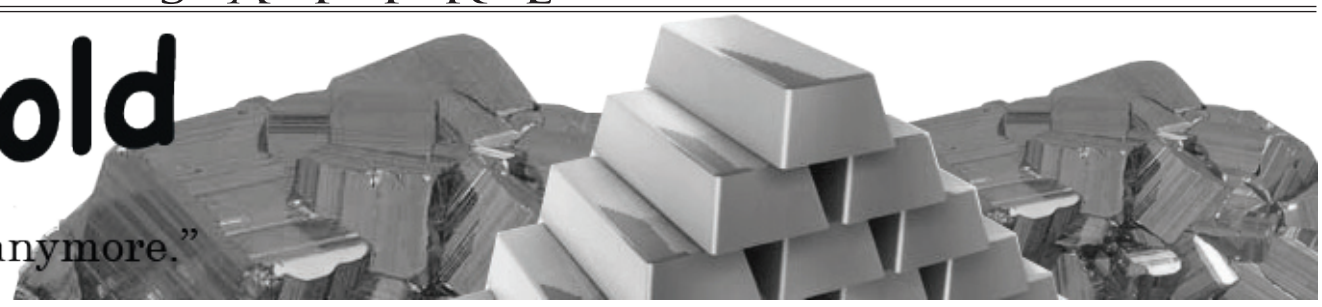
It is easy to stay silent, and to not take a stand for something. Stronger men know better. It has been said that one needs to stand for something, or they will fall for anything. Silence kills, and brings hope to the enemy.

Martin Luther King, Jr. once wrote that "Injustice anywhere is a threat to justice everywhere." Some would be fooled into thinking that saying nothing keeps you neutral. What saying nothing really does is show cowardice and unwillingness to see truth.

Do the reported 500,000 students participating in the National Day of Silence have a point? Are people persecuted because they don't have a voice? Absolutely. We would like to think of ourselves as better, as above the petty fighting of history, but we are not. It is time to fight the silence.

Fool's Gold

"Not just for playtime anymore."



Green Tip of the Week: Eat More Cows

Less Cows = Less Greenhouse Gases

Tim Weilert
Environmentalist

This past week the Environmental Protection Agency released their investigative report entitled "Agriculture's Relation To Climate Change." The report detailed the adverse affects of methane and solid wastes, produced by cattle, on the environment. From the report: "Estimates of methane emissions in 2006 were 34 percent higher than in 1990... THE TIME TO PANIC IS NOW!!! SAVE YOURSELVES!! AL GORE SAVE US!!!" In addition to the report, a new documentary titled ***An Inconvenient Cow: A Global Cookout*** has been released by the former Vice President.

After a bit of brainstorming, roasting, broiling, and grilling, The Oredigger staff formulated a solution to the problems associated with too many cattle: eat more meat. If too many cows is the problem, then eating them would be the tastiest solution to lowering their grass-munching, climate-hating numbers.

> If everyone does their part, we could see a 100% loss of species for cows.

As the weather becomes warmer in the coming months (probably due to global warming), people will begin to pull out their barbecue grills and smokers. We suggest that you use said weapons of mass cooking to put a dent in the cow population.

As a tip, use marinades to make your cow flavorful and delicious. Also, consider dressing your steaks and hamburgers with more meat, such as lamb chops, bacon, and chicken, because these animals are probably also harming the earth.

If everyone does their part, we could see a 100% loss of species for cows, which could result in up to a 0.000001% drop in greenhouse gasses! However, this is not enough, more needs to be done to save the earth before it implodes due to global warming.

Next week's Green Tip: How To Clear Cut A Forest.

Meteorologist breakdown

CDOT scandal unveiled

Cameron Frisby
Saddened News Reporter

The Denver Metro Area's favorite meteorologist, Stan Jaworski, had an emotional collapse last Thursday morning. Stan's shocking deterioration, assumed to be brought on upon by years of Colorado's bi-polar weather, quickly became Fox News' top story of the week.

Apparently, viewers enjoyed watching one man's life fall apart. During the thirty second clip, Mr. Jaworski spits out little snippets such as "Its just not fair," and "The wolf blew my house down too," in between long sessions of wailing.

CAMERON FRISBY / OREDIGGER

Due to its posting on You Tube, the clip garnered sufficient interest to warrant a full investigation into the life of the disgraced weather man. The facts unveiled by a team of canny reporters shocked the nation yesterday, as Stan's collapse seems to have stemmed from a deeper scandal.

Shortly after moving to Colorado, Mr. Jaworski met CDOT's superstar employee, Mr. Black. The roots of Mr. Black's rise to power remain shaded in mystery, but certain 'darker' aspects of his business strategies have recently bubbled to the surface.

One pleasant Monday afternoon, Stan was enjoying an iced beverage when our favorite CDOT employee approached him with a business proposal. As ingenious as it is evil, Mr. Black's plan found a willing co-conspirator in the easily manipulated meteorologist.

Stan was pushed to over emphasize the dangers of certain weather conditions in an attempt to discourage people from going out. This artificial decrease in traffic greatly reduced CDOT's amount of repair and maintenance work.

In return for his faulty reports, Mr. Jaworski received fifteen percent of the CDOT's maintenance savings every month.

The plan worked beautifully for the first five years, with Mr. Black and Stan benefiting greatly from the increase in cash flow.

Unfortunately, the influx of money started to control Stan's life, and he started to deliver more and more ridiculous weather reports in an attempt to further bolster his income.

The citizens of Denver slowly realized that Stan's reports could no longer be trusted, and CDOT saw an increase in traffic over the following months.

About a week ago, Mr. Black paid a visit to our meteorologist. This visit left Stan without his beloved cat, Snowflake.

Stan was given an ultimatum, one month to get people off of the road and Snowflake would be returned, no harm done.

Last Thursday, it all became too much when the teleprompter spoke of "a few snowflakes here and there."

The rest is tragic history. CDOT, under investigation for its dark business practices, released a statement announcing that Mr. Black is "seeking employment opportunities elsewhere." Snowflake is under protective custody.

From this day on, the weather shall never again be tainted by greed.

BREAKING NEWS

Oakland Raiders draft Andre the Giant

Team signs late Frenchman to 6 year, $80 million deal

CHECK OUT WWW.OREDIGGER.NET FOR THE COMPLETE STORY

Mines Freshmen storm like galaxy cruiser

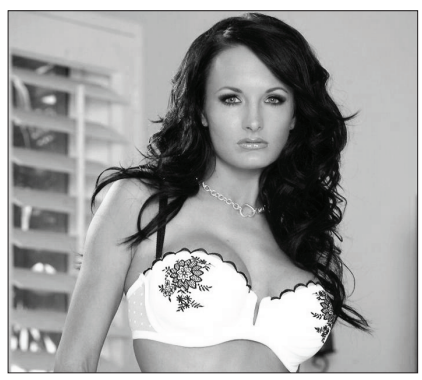
Mike Stone
Once a Fresh"man"

Yes, it is almost summer and everyone knows what that means: Puerto Rico and Pedro Al Horny's three for one tequila shots!!! No, it means summer sessions and freshmen tours! Like waves of Doritos falling from my bag into my widespread mouth, freshmen and parents hit the campus over and over during the summer to see if it's the right place for them.

I've had the opportunity to meet with some incoming freshmen on tour at school and the general sense is of awe. "This place is so small and close knit like a community that I just can't believe it's been hidden here all these years!" exclaimed young Sally McRotten from Florida. The truth to this revealing fact is the Coors plant keeps the town alcohol humidity rate as just over .08 so no one can leave to tell the tale.

"It seems like everyone is friends on campus. Even the teachers must hang out with the students," said Johnny Desperado. Nothing could be further from the truth. They're a deceitful people with lies and hate in their hearts… plus they eat babies. You'll learn to hate the professors too. Oh, greenhorn freshmen. Did I say hate?

"I'm going to be transferring here from CU next semester, because I love the variety of majors available," interjected Jennifer Hippytoes. The truth is, yes, we have the widest variety of narrow engineering subjects possible. For instance, Mechanical Engineering is nothing like Civil - wait. I blacked out.



COURTESY WIKIMEDIA COMMONS

Mines Girl. What everyone can expect as a result of the "ratio."

"Well, at least my tour guide told me the food was great," revealed Forest Pines. NOTHING COULD BE FURTHER FROM THE TRUTH! Eh chem. Excuse me. What I meant to say was the slate café and wide selection at all the great stores around the student center is wonderful. Now could you please take your finger off the trigger?

"Well, at least the media isn't censored," replied Forest. Exactly - we aren't. Want to see a swear word? Aww, just kidding! You thought I was gonna do it!

I continued on my journey to discover what the unknowing freshmen thought about our fine institution at the President's office in Guggenhiem Hall. "Why are you interviewing me?" asked Mr. Scoggins. He soon discovered that I hadn't fake interviewed him for quite some time. "We try to give the freshmen a feel for what it's like here at the School of Mines, Copyright, so we put those willing in total immersion therapy."

I went to the therapy lab to learn more. Dr. McNoname, the lead technician, told me how the process works. "Basically, we put them in a 3-D holographic environment with all this equipment here, tell them they have a test tomorrow and give them a book with equations they've never seen before. Then, we try to distract them from studying with Halo 3 and friends drinking in the next dorm room over. Just to top it off, we have their girlfriend who went to Arizona for college break up with them over the phone while her new boyfriend yells in the background. It's quite frightening, but true." Fascinating.

So for all you incoming freshmen who missed this 3-D experience and want to try it at home, simply bang your head against the wall, rinse, and repeat. I'm Mike Stone reporting for Fool's Gold News.

TOP TEN

Things to bring to CSM as a freshmen

10 Pencil
9 TI-89
8 X-box
7 Poster of Nancy Reagan
6 Your favorite frisby shorts
5 bottles of Patron for your RA
4 Razor for your new "beard"
3 Pet snake
2 Computer
1 Beer

-Mike Stone

Refine your engineering abilities...

...join *The Oredigger* staff!

Dear Readers,

We would like to begin by sincerely thanking you for your constant readership and support. Over the past eight months, *The Oredigger* has increased its print production by over 300% and has increased its online readership by over 750%, when compared to statistics from the 2006-2007 academic year. This was only possible through the tremendous passion and dedication of the entire staff, some of whom are pictured above. We would like to take this opportunity to thank all 50 members for putting in the 160-odd hours that each production issue takes.

We have truly enjoyed each of the 27 issues this year and are particularly proud to reintroduce the *Prospector Yearbook* as a free, full-color, magazine bound edition. There are many exciting innovations on the horizon and we hope that, as you program your schedule for next year, you consider the opportunities available at *The Oredigger Newspaper.*

The Editorial Board

THE OREDIGGER

Advancing the technology behind fuel cells

Physics department colloquium evaluates options, progress on path to sustainability

Surviving the drought

A look at water sustainability

THE OREDIGGER

Fume Hoods and PowerPoints

A look at academic lectures and campus research

Metallurgy lecture focuses on development of computational models

Featured Shell lecturer discusses alternative, biological hormone delivery

Variety of physics research initiatives showing promise

THE OREDIGGER

On This Day, 220 Years Ago

Constitution Day Arrives at School of Mines

New Life to Coors' Waste

AQWATEC Mission Statement

THE OREDIGGER

Green Campus Movement

Environmental Concerns Around College Campuses

Student Loans - *The Spiral*

Explosion in High-Priced Student Loans Sow Seeds of Trouble for U.S. Economic Growth

Nobel Prizes Announced

Peace Award to Former Vice President Al Gore

Gas Technology Institute (GTI), the leading research, development and training organization serving energy and environmental markets, has an excellent opportunity for an Associate Scientist.

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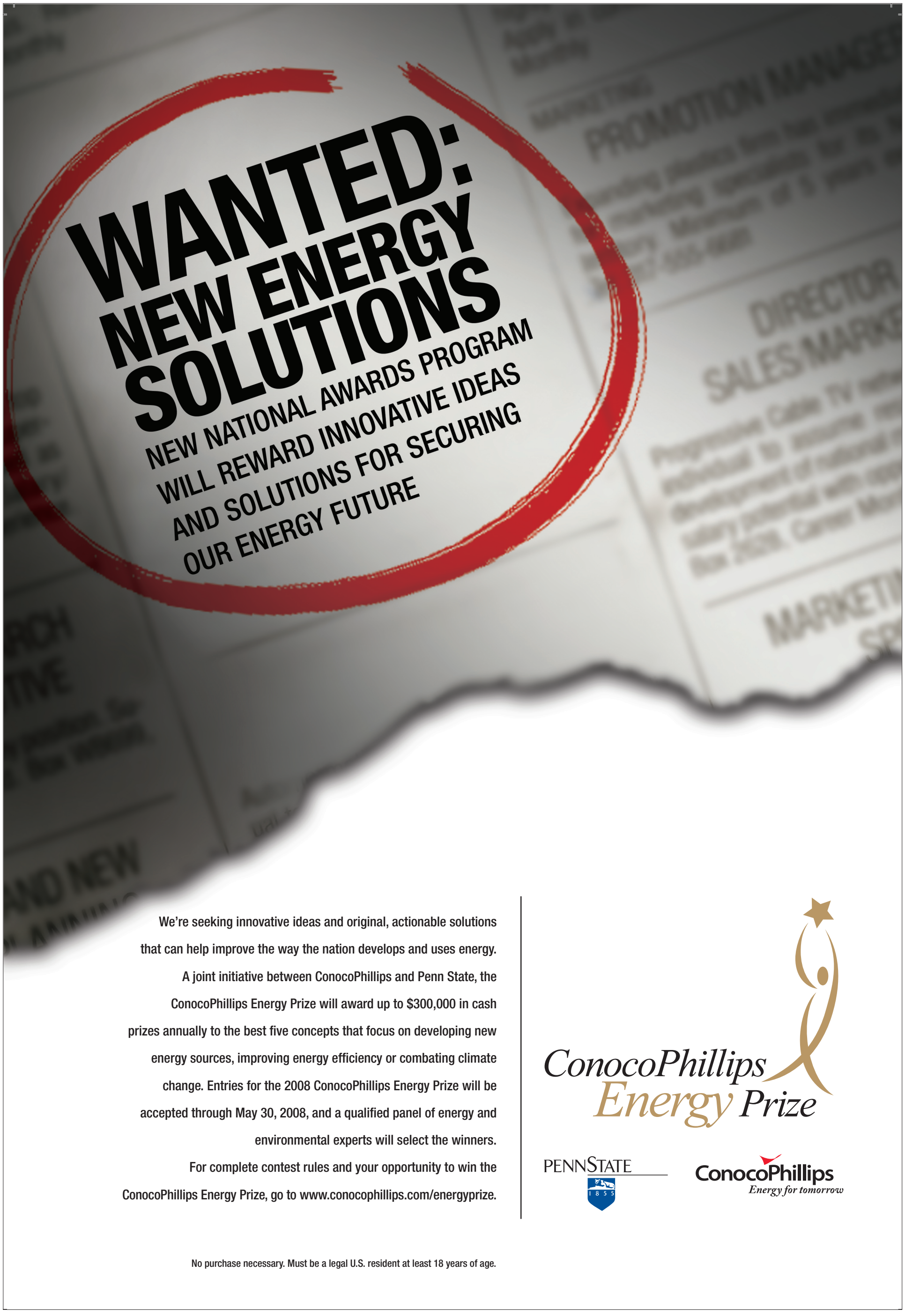

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